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LOUISIANA conservationist

july—august, 1970

comments

These are the days
when birds come back—
A very few—a bird or two—
To take a backward look.
—Emily Dickinson

Clark M. Hoffpauer, Director

There was a time when countless thousands of stately Canada geese mingled with an estimated half-million blue and snow geese over the winter burned marshes of Louisiana. They were a familiar sight to waterfowlers. The honking calls of geese in wavering formations sounded clear and pristine over the raucous bugling of vast flocks of blues and snows.

But those days have passed. Last fall and winter less than two thousand Canada geese migrated to Louisiana. Perhaps compelled by a tradition that spans centuries they were drawn to the dank marshes of Louisiana for a last look at an ancestral wintering ground.

It takes only a brief glimpse over the past two decades to fully understand how the migratory patterns of waterfowl can be manipulated so that traditional wintering grounds for ducks and geese can be changed to the extent that they no longer attract species that utilized those areas for centuries.

This happened with the Canada goose population. Under the guise of creating refuges in Illinois, Missouri and Wisconsin, fall flights of Canada geese were short-stopped. Surplus grain was fed to great concentrations of Canada geese. The geese stayed in increasing numbers each year. At the same time, flocks of Canada geese migrating to Louisiana grew smaller.

Eventually, the hunting of Canada geese in Louisiana was closed. This was done to "protect" the relatively small flocks that visited the traditional wintering grounds.

Soon afterwards, hunters in those states where refuge had been established were granted increasingly large quotas of geese. Firing line hunting pits ringed the perimeters of the refuges. Harvest of Canada geese near the refuges increased to tens of thousands annually.

This form of management did nothing to increase or to protect Canada geese. It merely caused them to abandon their traditional wintering grounds to be systematically and methodically hunted by shifts of gunners who bagged geese until fixed quotas had been filled.

At its public meeting in Alexandria in June the Louisiana Wild Life and Fisheries Commission adopted a strong resolution protesting activities of the Bureau of Sport Fisheries and Wildlife U. S. Department of Interior, to implement a similar program for blue and snow geese.

Use of federal lands, federal funds and federal personnel in a program similar to that of the Canada goose program have already reduced the wintering populations of snow and blue geese by 13 percent in Louisiana.

If the program of short-stopping blue and snow geese in Missouri, Iowa and the Dakotas is allowed to continue, there is little doubt that these geese will be seen in progressively smaller numbers in Louisiana. It is highly possible that within a decade or less the traditional annual migration from James and Hannah Bays in Canada to Louisiana could be changed.

Instead of hundreds of thousands of blue and snow geese in the southern extremity of the Mississippi Flyway, flocks could be reduced to paltry thousands. These geese would provide little hunter opportunity for southern sportsmen, and it is conceivable that eventually hunting of blue and snow geese in Louisiana could be closed.

In essence the resolution adopted by the Commission calls for an immediate halt to operations by the Bureau of Sport Fisheries and Wildlife to short-stop blue and snow geese, a demand for a full and immediate explanation by the Bureau of its management plans for those species of geese, and immediate efforts with federal funds to restore the normal migratory patterns of Canada geese.

The Commission is greatly alarmed at unnecessary and unwarranted manipulation of waterfowl resources which are not intended to benefit the resource for biological reason, but rather to favor other areas with hunting opportunity to the detriment of Louisiana hunters.

The Commission has sent copies of its resolution to the Louisiana Congressional Delegation, the Bureau of Sport Fisheries and Wildlife, the State of Texas, and the press. Waterfowlers would be wise to lend their support immediately in protest of attempts to permanently short-stop the migration of blue and snow geese to the state, as was done with Canada geese.

LOUISIANA conservationist

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I give my pledge as an American to
save and faithfully to defend
from waste the natural
resources of my country—its soil
and minerals, its forests, waters
and wildlife.

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The Louisiana Conservationist won the 1969 Award for Conservation Communications, known as the Governor's Award, sponsored by the National Wildlife Federation and the Louisiana Wildlife Federation, in cooperation with the Sears Foundation.

JOHN J. McKEITHEN, Governor

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Louisiana is erecting oyster monuments in the marshes. When completed they will serve as permanent markers to assist oyster fishermen in properly locating their individual oyster leases, and in the acquisition of additional oyster bed areas that might be available.

The oyster monuments being placed by the Oyster, Water Bottoms and Seafood Division are not *in memoriams* to tons of oysters harvested and consumed each year by Louisianians. They are survey markers which will eventually be placed in every strategic corner of the Louisiana marshland.

These markers will allow the Oyster Division to locate specific oyster bed sites to men applying to raising oysters. The monuments should make the definition of oyster territories as easily traceable as the boundaries on your home lot.

At the turn of the century, oyster fishermen were few in number and their oyster beds were scattered throughout the marsh. The oystermen sought natural reefs or suitable bottoms on which to grow their oysters.

Monuments in the Marsh

BY JOHN W. LAY, SR.

The surveyor must often work from a double tower in order to view over the tall marsh grasses. The inner tower is for the transit while the outer one supports the man and will not interfere with the steadiness of the instrument.

When the proper sight has been determined, the monument is placed in the ground so that nine inches are above the surface.

LOUISIANA WILDLIFE AND FISHERIES COMMISSION

WILD LIFE AND FISHERIES COMMISSION
WRITE THE DIRECTOR, NEW ORLEANS, LA
FOR INFORMATION
$100 FINE FOR THE DISTRUCTION OF THIS MARKER
STATE OF LOUISIANA

Brass plate affixed to the top of the monument for proper identification.

Areas with good potential for growing oysters were plentiful because fishermen were limited by their equipment, and the volume of oyster production was slower. Rarely was there contention over the rightful owner of an oyster bed.

Recently, competition for good sites for oyster farming has become more intense. The Oyster, Water Bottoms and Seafood Division took the initiative to help this condition by means of a project known as "Oyster Lease Monument Control."

The idea was developed and approved by the Louisiana Wild Life and Fisheries Commission in 1965. Later that year, an application was submitted to the Department of the Interior, for federal assistance.

On February 21, 1966, the monument control project was approved, and crews set out into marshlands to begin the surveying and laying out of the concrete blocks.

A monument is a block of concrete formed around four, one-half inch reinforcement rods tied with quarter inch tie rods. The finished product is six feet in length and tapers from a six-inch square at the base to a four-inch top. The embossed inscription on the brass disk on the top states:

> "State of Louisiana Wild Life and Fisheries Commission. For information write the Director, New Orleans, Louisiana $100.00 fine for the destruction of this marker."

In the days before congestion in the oyster beds, applications for oyster leases were made by mail. The fishermen would send a rough sketch or brief description of the desired location and request a survey of the area described, or apply in person at the Oyster, Waterbottoms, Seafood Division office of the Louisiana Wild Life and Fisheries Commission in New Orleans.

Today it is necessary for all applicants for leases to appear in person and sign applications. As in the past, applications are reviewed with regard to the location and area. A survey is then made and the lease is marked off by stakes, and recorded in reference to its geographical location in respect to planted monuments.

The new concrete monuments have been designed to withstand marsh deterioration and should be permanent fixtures. Formerly, surveys were based on reference to landmarks such as trees, camps, a point of land, a piling or any object which might have stood out above the marsh. These reference markers were often lost because of marsh fires, storms, erosion or decay. The monuments were the answer to the problem of relocating leases whose landmarks had been washed away by the elements within the marshes.

The planting of a monument in a pre-determined site is a production requiring men, boats, heavy equipment, and the concrete block. Herons, egrets, and alligators must watch the flurry of human activity in awe, little knowing the reason for monuments in the marsh.

When the correct location has been determined by the survey party, the 170-pound monument is taken from a work boat and dragged to its site. Final replacement is achieved by breaking the crust of the marsh and lowering the monument into the hole, leaving nine inches protrud-

The backbone of the survey operation is the very delicate transit plus the eye and experience of the party chief.

The lease survey is a time-consuming operation due to the locations involved and the tedious mode of transportation.

When the lease survey is taken the Commission requires that the lessee be present.

Survey chief signals his rodman, in the distance, as they prepare to traverse the base line.

ing above the ground.

A marker sign is placed beside the monument to make relocation easier.

Engineers can make a "closed traverse" by referencing one monument to another. Several readings of a bearing are made and referenced to a known coastal geodetic monument in a nearby location whose "X" and "Y" coordinates are known. From this information, by building on the monuments which have already been surveyed, and extending coordinates, a map of the marsh can be accurately drawn.

From the map a re-stake is made of any leases already occuring in the area mapped. It is resurveyed from the nearest monument and accurately established as a permanent position that may be relocated as may be necessary from time to time.

The implementation of this new system will assist the oyster fisherman in the following manner: 1. It guarantees him that his lease is not overstaked by his neighbor's lease. 2. Should his stakes be destroyed or removed, they can be replaced with an accurate survey. 3. By more precise surveys, he may obtain through the Division the knowledge of available acreage in a specific area he may wish to apply for. 4. Correct detailed lease plats are prepared and presented to him as substantial proof of ownership for any action which may occur involving his lease.

The actual leased oyster bedding grounds were recorded at 48,643 acres ten years ago. This climbed rapidly to approximately 108,080 acres in 1970. Of this amount 44,000 acres has been applied for in the past two years.

It was recognized when the project was initiated that several years would be required for its completion. Upon terminations of this project the monument project survey party will perform regular surveys of oyster leases. This will reduce the time between the application date and that of the field survey. In this way, experienced and trained personnel reassigned from the monument project would increase the output of surveys now being performed.

Forgotten Berry Basket

BY McFADDEN DUFFY

The stained old wicker berry basket is fast disappearing from the American way of life, except for some rural areas where juicy ripe berries of late spring are gathered to be preserved, fashioned into muffins and pies, or consumed fresh.

For most people, berry picking as a family outing was abandoned about a generation ago. Today, a basket of blackberries on a kitchen table is a relatively rare sight. The same can be said for almost too-sweet mulberries.

Out in the country, picking berries in season is a pleasant chore. The summer and winter larder isn't complete until jars of wax-sealed preserves are stored with other home-canned foodstuffs for later consumption.

Throughout the berry season, fresh fruit has its place in the daily menu. It finds its way into muffins and cobblers that make a kitchen swim with heady, tempting odors. For the most part, sportsmen and their families are missing a bet when they fail to visit a berry patch and partake of a food offering readily available for humans as well as some forms of wildlife. It is fun and downright satisfying, even if lacking the appeal of other, more active outdoor sports.

Today's urban, sterile kitchens lack the friendly sights and odors of the comfortable farm kitchen where proper respect is paid to simple things like fresh berries.

A great amount of wild berries are gathered each year, but the trend is toward cultivation and mass production in some areas to fill the needs of commercial producers of preserves, jellies and jams.

A relatively small number of persons pick an estimated 100,000,000 quarts of blackberries each year to supply commercial outlets. Ironically, more than three times that amount of blackberries alone go unharvested in the field.

The berry patches, often better known as bramble patches, are considered a nuisance because they are thorny. The name bramble covers an enormous number of berry producing plants, including the raspberry, cloudberry, blackberry and dewberry.

It may come as a surprise to many people that these fruit producing plants are members of the rose family. The ripe fruit produced each spring has been used in this country since the days of the earliest settlers. It wasn't until about 1850 that any attempts were made to cultivate the fruit.

Steadily since then, cultivation has increased and collecting of wild berries has declined. The greatest number of persons are content today to let commercial firms manufacture their preserves and jellies. There are about 24 varieties of blackberries found in America. The wild patches spring up in clearings in wooded areas, along fences, and in open fields.

Rare indeed is the person with access to a fully grown and productive mulberry tree or bush. This particular berry is the fruit of a delicious tree or shrub of which there are about 12 species in this country. A few are grown for ornamental plants. Others were cultivated for their edible berries, and one was used extensively in the silkworm industry. The latter is the white mulberry and is native to China.

The North American red mulberry is the largest of the species. It produces dark red edible berries and they are used primarily for human consumption, as are the black mulberries which are native to western Asia but spread eastward in cultivation at an early period.

The black mulberry is considered much superior to other species and succeeds best in damp, soft, rich soil. These cultivated trees are found mostly around abandoned farms and sharecropper's cabins. They are far from abundant and lucky is the outdoorsman who happens to locate a fruit-heavy tree in the spring.

Blackberries and mulberries are favorite foods of birds and some forms of wildlife. Like the hack-

berry and some other wild berries not sought for human consumption, they play an important role in providing food for wildlife.

An interesting item worth noting about black mulberries is that they are almost too sweet to be palatable. This is one of those strange quirks of nature. The same is true of honey produced in Yucatan. It is so sweet that it is used only in cosmetics and pharmaceuticals. American housewives whose aprons are more functional than frilly know that a little lemon juice takes the edge off the super sweetness of mulberries.

Aside from providing a spring delicacy that can be preserved in several ways for summer, fall and winter treats, the briar patches that produce several species of wild berries play an important role in wildlife housekeeping. The tangled, thorny clumps dotting the countryside provide shelter for song birds, quail and rabbits.

Even small beagles have difficulty in flushing a cottontail rabbit that has sought the sanctuary of a briar patch. They will make bold efforts to penetrate the dense cover and bugle their protest at being foiled by foliage. In many cases they simply give up and seek a rabbit elsewhere.

Short haired bird dogs have more success than heavier coated pointing dogs but dense briars provide a fine hiding place for frightened quail. Hunters will cuss the clinging, stabbing briars and the quail sitting tight in this sort of cover has little chance of being bagged.

Home freezers should encourage more persons to take advantage of available supplies of wild berries in late spring and early summer. Berries are easy to package for the freezer and can be served in January when the brambles that produced them are winter-burned. Yet, too often wild berries are neglected except by birds and small game animals.

Make a berry-picking trip next spring and the chances are that you'll become a fan. It is a lazy, easy form of outdoor recreation. Bonus benefits are quarts and quarts of berries that can easily be stored and enjoyed over a long period of time.

the whooping crane

By Charles R. Shaw
Illus. By Harvie J. Austin

Grus americana—The magnificent creature, its height of over five feet making it the tallest native bird in North America, has barely been saved from extinction.

Although the whoopers have increased from a low of 14 wild birds wintering on the Aransas National Wildlife Refuge in Texas in 1938-39, plus a few in Louisiana, to 56 birds at Aransas in 1969-70, the wild flock still could be exterminated if a series of mishaps should occur in the same or successive years.

The picture is brightened somewhat by the fact that there are now 21 of these large white cranes in captivity.

Louisiana used to harbor whooping cranes, both wintering birds and residents, but a 1940 storm blew the members of the colony of 13 at White Lake inland and only six returned. This group dwindled to one lonely bird by 1947. The last fully confirmed record was a single bird present during the winter of 1949-50 which was captured by U. S. Fish & Wildlife Service biologist John Lynch with the aid of a helicopter and transferred to the Aransas Refuge.

Although at a distance this large white crane with a red face and black primary wing feathers might possibly be mistaken for a wood ibis, white pelican or snow goose because of the wing color pattern, no one within shotgun range of this gigantic bird could make such an error. In spite of this, most of the mortality has been caused by gunfire during the long migration from the isolated breeding grounds in the Northwest Territory of Canada to the traditional wintering grounds on the Gulf Coast.

The future hopes of the continued existence of the whooping cranes rest on a few basic premises, and are subject to the will of man. Preservation and expansion of suitable habitat on the wintering ground is necessary. These birds are highly territorial and each family establishes a large wintering area which is fiercely defended from all other whooping cranes. The future size of the wild flock may be limited by the amount of suitable wintering habitat made available by man for this purpose.

The second factor is the continued protection and isolation of the breeding grounds in the Wood Buffalo Park in Canada. The inroads of civilization, such as the proposed routing of a railroad through the area or oil exploration and development, could destroy all hope of survival of the flock. The breeding potential of the birds is low and it is essential that every opportunity for natural reproduction be given them.

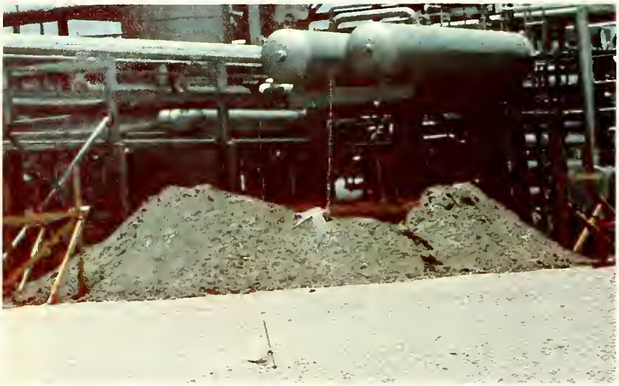
Another consideration, of perhaps equal importance is the protection of the flock during migration. This protection is made more difficult by the fact that the immature birds, not yet in adult white plumage, may be mistaken for their close relatives the sandhill cranes on which there is an open season in some areas. Since there obviously are not enough enforcement personnel to supply complete protection there must be an educational program of international magnitude to enlist the aid of the general public in this vital factor.

The other important phase of the preservation of the whooping crane is the old and often fiercely disputed matter of the propagation of captive birds. The whooping cranes hatched and raised in the Audubon Park Zoo in New Orleans proved this procedure is possible, and the research biologists of the U. S. Fish & Wildlife Service at the Patuxent Wildlife Research Refuge in Maryland are carrying out important studies to work out a feasible breeding program using captive birds.

This work looks promising although the birds they are working with are very young ones. The project has excellent long range possibilities and may easily increase the number of whooping cranes in captivity.

The more difficult problem will be to return these birds to the wild as freely migrating members of the wild community.

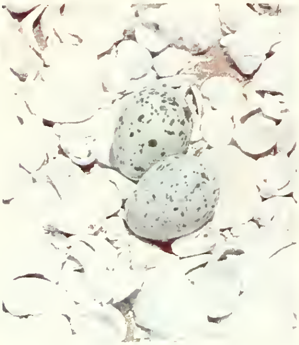
Of course there is one final factor, chemical pollution, which if not solved, may still render all efforts useless, both for the birds and mankind.

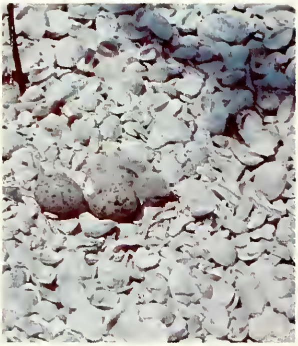


When terns nested in the midst of plant activity, workers placed welding rods beside nests to warn trucks of their location.

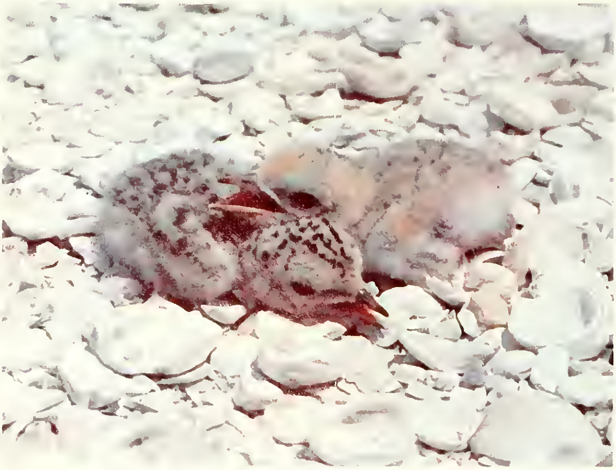
The shadow of an anxious parent circling above lies across a nest of two eggs and a newly hatched young.

Egg coloration blended perfectly with the shell surroundings and were laid in a mere scraping made by the parent bird.





Jack Merrill grins sheepishly as the camera catches him planting a welding rod beside a nest.



Two young chicks lie in the heat of the sun awaiting the return of the parent bird.

Young tern crouches in a protective hiding position in the grass around the nesting area.

TERN
THERE IS A TIME TO EVERY SEASON…
TERN "and a place for Everything under
TERN the sun"

STORY AND PHOTOGRAPHY BY
KATHLEEN BLAKENEY

"They just started flying in, and before you knew it we had birds and nests everywhere."

When 500 least terns decided to nest within the Humble Oil & Refining Company's gas plant on Grand Isle, the workers in the plant very literally took the birds under their wing.

The birds migrated to the island in early June and for the second year in a row decided to nest in an open area strewn with white clam shells right in the heart of the plant's activity.

Workers were bewildered by the little tern's choice of homesite, trucks pass continually through the area, but the least tern knew what she wanted. The birds immediately began scraping bowl-shaped depressions in the shells and laid one to four creamy eggs with dark blotches in the nests.

The workers rallied to the cause and became the self-appointed guardians of the bird colony. Big men spent hours walking hunched over through the nesting area putting welding rods into the ground to mark where the nests were. Although drivers tried to steer clear of all welding rods, the eggs blended so perfectly with the background of clam shells that some nests met with unavoidable disaster beneath the wheels of ten-ton transports.

Progress on a pipeline halted until workers carefully relocated the eggs in the area to a safer spot. Fragile one-inch eggs were cradled in gnarled, oil-stained hands and carried to already established nests in an undisturbed area. The men watched closely and found that the terns accepted the new eggs and raised them with their own.

When the eggs began to hatch, a new problem arose. As adult birds renested, little terns in every stage of development began to pudge about the area. The young develop quickly, the workers noted, and soon helpless fuzzy white chicks became fleet-footed youngsters hiding in the grass at the end of the area of running out of the plant grounds on to a nearby road.

Then the people of Grand Isle joined the cause. Cars driving along the road next to the Humble plant often stopped and islanders were seen jumping out to scoop an errant baby tern out of the road and return him to the safety of the plant.

Everyone on the island enjoyed the panorama early evening brought when parents flew to the Gulf in droves and returned with tiny silver fish of various types to feed their young.

Both the least tern and the Humble employees have gained from their month long co-existence. The least tern received human protection, and the employees gained the pleasure man always experiences when he sees a thing of beauty.

If the needs of industry often seem to conflict with the designs of nature, at least the little tern and the oilmen is one case where wildlife has found that industry is not so objectionable after all.

The Louisiana Schmoo

BY KATHLEEN BLAKENEY

PHOTOGRAPHY BY
JAY DROTT

ILLUSTRATION BY
DAVE NORWOOD
(after Al Capp)

"Al Capp said he wouldn't mind."

Editor's Note: The Louisiana Wild Life and Fisheries Commission wishes to express appreciation to Al Capp for his permission to use the friendly Schmoo in connection with this article.

Al Capp thinks the Schmoo is a figment of his imagination, but Louisiana pogie boat fishermen know better.

The Schmoo, as all Lil' Abner comic strip fans know, is an animal whose only purpose in life is to serve man. He costs nothing, is no trouble, and his plentifulness is unlimited. Upon request, he transforms himself into a variety of useful products for man's use. And Louisiana is one of the few states in this country to possess a real-life Schmoo.

The menhaden, a small herring-like fish found in Gulf waters off the

Al Capp's give-all take-nothing character is alive and well off Louisiana's Gulf Coast . . .

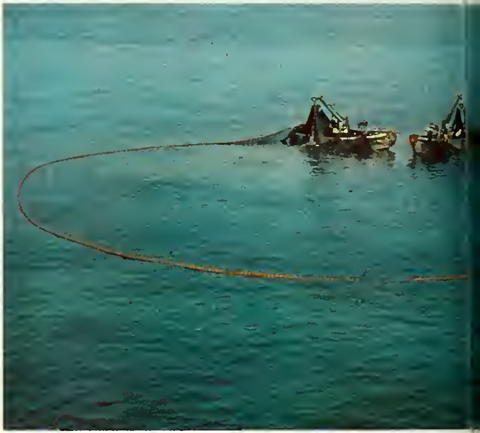
Louisiana coast, is a Schmoo in fish form. The little fish is a multi-purpose animal. His flesh is too oily for human consumption, but his oil is marketed commercially to make everything from soap to finished leather.

The menhaden's value does not stop at its oil use. Fish cake from the menhaden has been found to be a valuable high-protein source used as a feed supplement for livestock. And the utilitarian menhaden's left-overs, after removal of all oils and dried meat, serve as a component of liquid fertilizer.

It takes more than a wish to transform the Schmoo-like menhaden into its many useful products, however. The menhaden harvest is a prodigious undertaking requiring the time and effort of many men and machines. The pogie boatman, manned with three boats, an airplane, and a huge net entrap large schools of menhaden.

Before dawn, the large menhaden boat carrying two smaller purse boats sets out from the home fishery. Overhead a spotter plane flies reconaissance, hoping to spy anything from a reddish-brown area to a large abrasion on the water

The pogie boats and spotter planes set out before dawn . . .



surface, indicating a menhaden school feeding on plankton.

The radio man in the large boat listens closely for a communication from the spotter plane. Suddenly, the spotter plane radios that a school has been sighted. The look-out in the crow's nest aboard the large boat pin-points the exact location of the school, the two purse boats are lowered, and the chase begins.

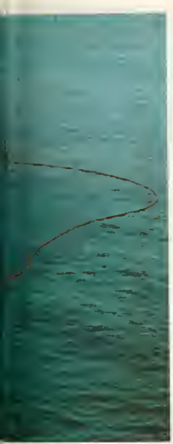
Each purse boat carries half of the 60 by 1200 foot net that is used to entrap the school. As the two purse boats separate to surround the school, each crew of men work at spreading the net, called a purse seine because the bottom of the net can be drawn together or "pursed" to entrap the fish. The purse boat captains swiftly close in on each other forming a circle with the net, then the bottom of the purse seine is drawn together forming a bowl-shaped network that is inescapable.

At the news that a successful set has been completed, the mother boat closes in and the catch is pumped aboard into large refrigerated holds aboard the ship.

Many more sets are made before the holds of the menhaden boats are filled with fish. When the holds are full, the pogie boat fishermen are satisfied and the boat turns homeward to processors in either Empire, Cameron, DuLac, Morgan City or Abbeville.

The menhaden's Schmoo-like nature comes not only from its usefulness, but also from its plentifulness. They are known to reproduce at such an astounding rate that the mammoth harvest of the fish each year by menhaden industries along the Atlantic and Gulf coasts has not sapped the resource. If anything, it is believed that the heavy harvest makes for a higher infant survival and faster growth rate by siphoning off the older fish. Enough mature menhaden survive the purse seines of the fisheries to produce an ample amount of offspring.

The menhaden's service to human beings in America is as old as the American Indian himself. Indians used to put a fish in each hill of corn to increase the yield of their fields. When the English immigrated to this country, the Indians taught them the value of the little menhaden. By the later 1700s, menhaden were being used to enrich soil in farms along the northeastern coast and Long Island. As



the years passed, more and more uses were found for the menhaden and his by-products have been found to be of increasing utility and value. During the second World War, for instance, the meat of the menhaden was discovered to be rich in Vitamin B-12, and was used to provide a much needed source for high-protein feed supplements.

The plentifulness of the menhaden is a mystery to biologists. The menhaden industry is the first to admit that research on this valuable resource is sadly lacking. Jack Styron, industry expert, has remarked, "There are so many unknown factors, such as how many fish should be harvested, which age group is the best to tap, and where the fish go during the winter months, that it is a tremendous challenge to a knowledgeable biologist."

Several facts about the menhaden life cycle are known however. From May to November, large numbers of menhaden can be caught in Gulf coastal areas.

The spawning season falls between October and February. The female spawns 40 to 700 thousand eggs in the Gulf. The hatching and larval development of the young occurs in the Gulf, then currents carry the young $^3/_4$-inch to 1-inch fingerlings into the estuarine or brackish marsh waters along the coast. The summer spent developing in the marshes is absolutely essential to the survival of the menhaden.

In autumn, the two to six-inch juveniles congregate into large schools and migrate to the open Gulf.

Game fishermen often complain that the harvest of menhaden cuts down on the number of game fish available in the Gulf. They claim game fish are reduced because they are drawn into the purse seines with schools of menhaden. Further, game fishermen say the harvest of menhaden eliminates a large portion of a game fish's diet. There is less for the game fish to eat, and so fewer game fish to catch, they claim.

The pogie boatmen are an easy scapegoat for a bad day of fishing, but detailed studies have shown that this isn't correct.

The Louisiana Wild Life and Fisheries Commission has made numerous surprise visits on menhaden sets and found few if any game fish in the nets. Out of 295 tons of menhaden examined at one time, only one mackerel and six white trout were found. Bulletin 30 of the Texas Game, Fish and Oyster Commission bears out what the Louisiana Commission found: "Seines are incapable of capturing young game fish in shallow water because of the size of the mesh and the danger of fouling the net. Moreover, it has been observed that any large game fish enclosed in the net immediately sounds and escapes below the leadline."

Studies made to determine if the large harvest of menhaden deprives game fish of a sufficient diet show that this is not the case. The menhaden makes up but a small portion of the diet of most fish. Predator game fish, like their human counterparts, prefer other, less oily fish.

In fact, the real conservation problem has been found to be not the harvesting of menhaden by commercial fisheries, but the maintenance of the estuarine marshes where the young menhaden develop in an unpolluted state.

Jack Styron gave an example of the sort of damage he fears will come to the Gulf coast when the marshes become more polluted by industrial wastes.

Styron's company used to maintain a highly successful menhaden fishery in Fernandina Beach, Florida. This Atlantic coast fishery used to catch millions of menhaden a year. Today, the fishery is greatly reduced. Large schools of menhaden are no longer to be found off the coast of Florida. Styron believes the decline of the population of menhaden was due to pollutants on the Atlantic seaboard.

"I don't want to see the Gulf coast in the same condition within the next ten or fifteen years," Styron said. And he believes that at our present rate of increasing pollution ten or fifteen years is a conservative estimate of how long it will take to destroy the delicate marsh ecosystem.

The plight of the menhaden fingerlings who swim lazily through the brackish water of Louisiana's marshes is also the plight of the shrimp, the drum, the speckled trout, the flounder, the croaker, and other fin fishes, plus the waterfowl who winter there.

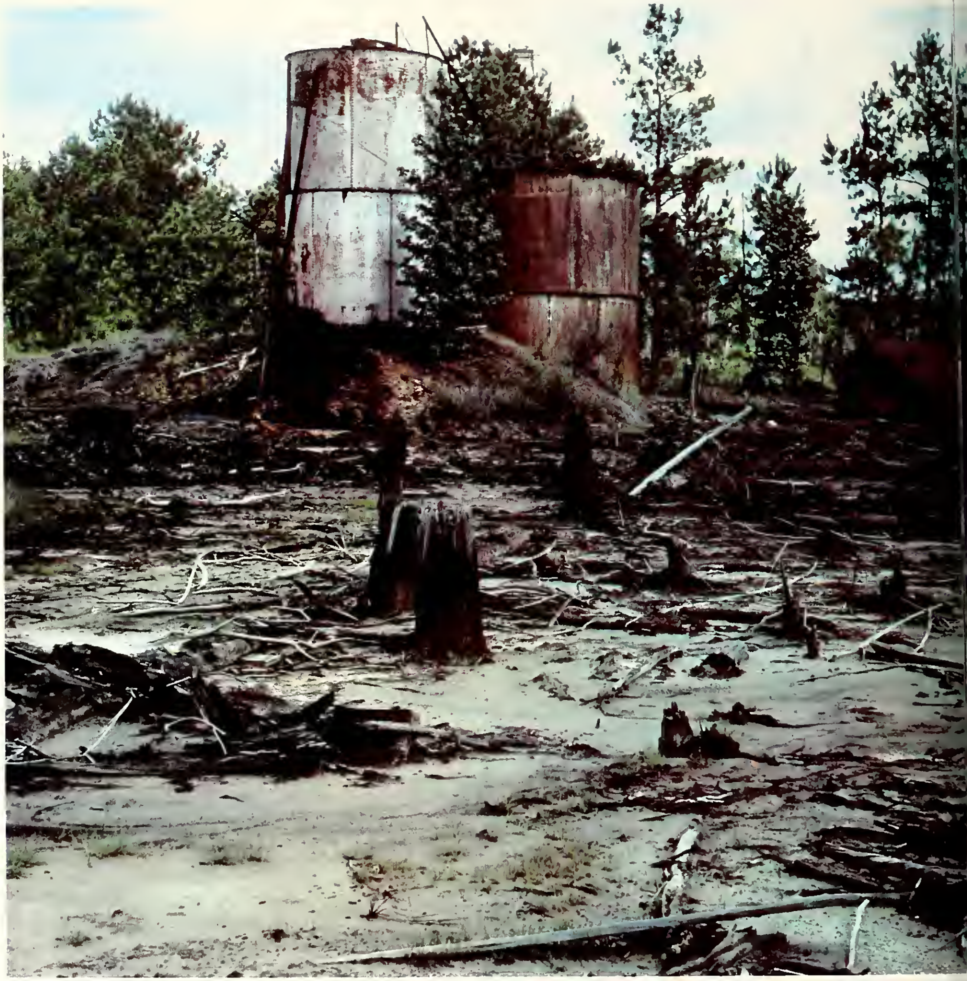
Louisiana's five million acres of marshland exceeds the total marsh area in all other 49 states combined. This unique resource often viewed as a waste of land and water breeding nothing but mosquitoes is a most valuable resource.

The marshes are the single most important reason why Louisiana leads the nation in menhaden, shrimp, oyster, and fur production. They give Louisiana a unique asset which attracts to her coast most of the blue geese and snow geese in the entire continent of North America.

The menhaden fish industry is a large multi-million dollar business which is vitally interested in the welfare of the marshes. They have printed public information on the value of the marshlands hoping to awaken the people of the state to the necessity of preventing pollution from destroying the marshes.

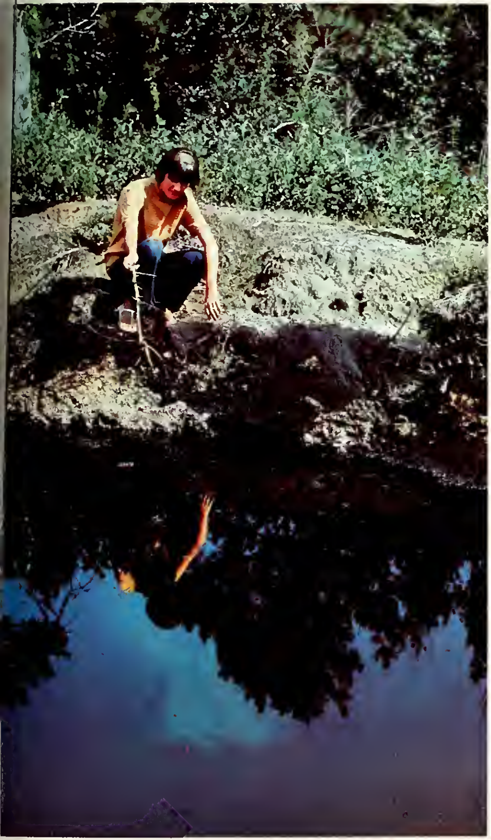
They hope that public information programs on the importance of the estuarine areas will give Louisianians an understanding of the vast richness of their marshes and that the state will move to preserve their condition. Then the menhaden will continue to be plentiful off Louisiana shores.

The real conservation problem is the preservation of unpolluted marsh areas where menhadden mature.



SORES ON THE LAND

Story and Photography
By KATHLEEN BLAKENEY



This young lady examines a stick she has dipped into an inadequately diked oil sump near Tullos, Louisiana.

Careless management of oil fields in LaSalle Parish near Alexandria is making a "vast waste land" out of one of Louisiana's most beautiful wooded regions. Oil and salt water left in sumps with low levees—if levees at all—wash into the surrounding woods with every rainfall and leave devastation reminiscent of T.S. Eliot's poem, "The Waste Land."

The following photo essay is not out of the imagination of a poet. The pictures are as real as the earth under your feet. These photographs show the disrespect oil companies in this area are showing for the laws of this state, and the beautiful heritage of the land.

The pollution enforcement section of Louisiana Wild Life and Fisheries Commission is doing all it can under the law. Unfortunately, the law is indefinite and wishy-washy in its treatment of violators. Out of 811 citations issued, 65 cease-and-desist orders and charges filed by the Wild Life and Fisheries Commission in state court, only one case has ever come up. The result was a $25.00 fine.

The oil and salt water the wells dump into bayous is an effective destroyer of all wildlife and vegetation. Little River in LaSalle Parish is turgid with slime from oil field run-offs, and it is only a matter of time until Catahoula Lake, which Little River drains into, is ruined.

There are standards. Standards which demand fire walls, levees, and proper piping away of salt water and oil. Laws which should protect the surrounding woodlands from petroleum burns when heavy Louisiana rains flood the fields.

But the laws behind these standards leave enforcement officers with the bitter taste of frustration in their mouths. This month 30 citations were issued in LaSalle Parish. And this has gone on for months and months. Only one fine. Acres and acres of wasteland.

What are the roots that clutch,
what branches grow out of
this stony rubbish? A heap of
broken images where sun
beats.

And dead trees give no shelter
And cricket no relief
And the dry stone no sound
of water.

I think we are in rats' alley
Where dead men have lost
their bones.

The river sweats oil
and tar . . .

. . . Here is no water but only
rock. Rock and water and the
sandy road. If there were
water we would stop and
drink. Amongst the rock one
cannot stop or think . . .
Here one can neither stand
nor lie nor sit.

. . . What have we given?
My friend, . . . The awful daring
of a moment's surrender.
Which an age of prudence can
never retract. With the
arid plain behind me. Shall I
at least set my lands in order?
T. S. Eliot

BY MCFADDEN DUFFY

a yellow Ladys-Slipper

Editor's Note: Material for this article was condensed from Orchid Collecting in Louisiana, by John J. Lynch, Research Biologist, U.S. Fish and Wildlife Service, as contained in the Bulletin of the Louisiana Society for Horticultural Research, Volume III, Number 2, 1967, and in a personal interview. ☐ Wild orchids in Louisiana? Perhaps many staunch garden club members will hear the chairs of others being pushed back as they, too, rise to their feet in astonishment. Yes, there are wild orchids in Louisiana and if the efforts of John J. Lynch of Lafayette are successful, seedlings of the native wild orchids will be distributed in suitable habitat throughout the state. ☐ In three years, possibly, sturdy seedlings of Louisiana's Ladys-Slipper may be set out in the wild in state and federal forests, along nature trails and in wildlife refuges, as well as in botanical gardens and other protected sites, where they can be enjoyed by nature lovers. ☐ The work that Lynch is doing with Louisiana's yellow Ladys-Slipper orchid (Cypripedium calceolus v. pubescens) is the story of what an orchidist is doing to prevent the tragic disappearance of a native wild orchid. It also opens the door to a fascinating account of wild orchids in Louisiana that can be touched on only lightly in this article. ☐ A basic observation is in order. The orchid hunter of fiction and fact is usually thought of as a colorful, nonconformist prowling distant lands and braving untold dangers in order to find new plants for horticulture. Lynch is proving that ordinary people with a love of wild beauty can engage in this fascinating pursuit of wild orchids and do not necessarily have to venture far from home to do so. ☐ This article will deal with only two native orchids but accredited research lists 32 species, representing 14 general, of the *Orchidacenae* that are native to Louisiana's meadows, woodlands, swamps and roadside ditches. As new areas are searched, it is entirely possible that more orchids will be added to the state's flora. ☐ Lynch is quick to point out that possibly some of Louisiana's wild orchids will decline, and soon disappear altogether from this region. The orchid collector will be blamed, at least in part, for this unfortunate development. ☐ The wild orchids of Louisiana had generally been considered quite rare, and not responsive to greenhouse or garden culture. In the interests of their conservation, many authorities had urged that botanists gather only such specimens as were needed for scientific purposes, and that amateur collectors refrain altogether from gathering them. ☐ It is true that there is little wisdom in the indiscriminate uprooting of wild orchids, and their transplanting to gardens or greenhouses where cultural conditions are not favorable for their survival. Left undisturbed in the wild, such plants could be enjoyed by all who would take the trouble to get acquainted with them. ☐ Lynch, who understands both old and new attitudes in collecting, points out that some of Louisiana's wild orchids are quite abundant. Many of them have horticultural possibilities that, if intelligently developed, would greatly enhance the enjoyment of these plants by orchidists and other gardeners, amateur and professional alike. ☐ Other species are not especially common, but some of these may be merely "non-abundant" for quite normal biological reasons, rather than rare in the sense that their survival is threatened. ☐ A few of Louisiana's orchids do seem in danger

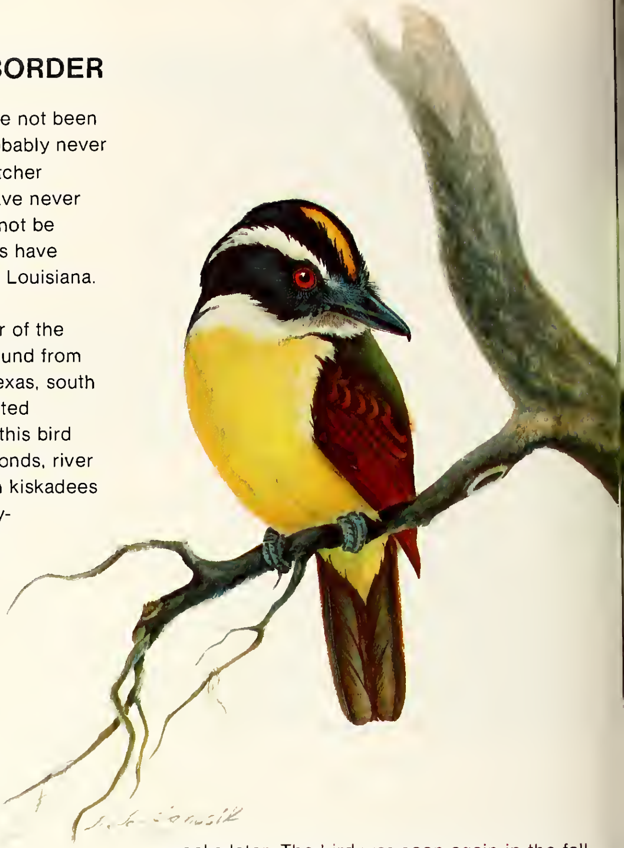
of serious diminution or even total extirpation. One might argue that these surely should be left to Nature's care. Yet, Nature is not as benevolent a caretaker as some of us would believe. ☐ As Lynch puts it, the fossil "record of the rocks" is replete with mute testimonials of Nature's innumerable horticultural failures. Furthermore, there is no conclusive evidence that collectors have been the sole cause for the complete elimination of any orchid from any region. ☐ Thus, orchid hunting will continue in Louisiana, although it is now assuming new dimensions. Plants are no longer sought merely for the excitement of the search, nor for the aggrandizement of a few private collections. ☐ Researchers now are inquiring into the present and probable future status of each wild orchid species, its ecology in the wild, and its requirements in cultivation. ☐ The collector of orchid plants is now becoming a collector of orchid knowledge, which information will serve to promote in a positive manner the conservation of rare species while augmenting the enjoyment of all wild orchids by mankind. ☐ The *Epidendrum* story serves to stimulate thought. The little Green-fly orchid, *Epidendrum conopseum,* has been known to grow in certain trees in the Florida Parishes of Louisiana, east of the Mississippi River and north of Lake Pontchartrain. It had also been reported in bottomland hardwoods along the Calcasieu River near Lake Charles, and a living specimen of this plant, brought to Lynch for identification in 1950, was said by its collector to have been found in live oak trees along the Vermilion River near Abbeville. ☐ The abundance of this epiphytic orchid was disputed. No one had gone to much trouble to research its presence. Lynch accompanied the late Professor Ira S. Nelson of the University of Southwestern Louisiana on his first search for *epidendrum.* ☐ They searched stream valleys where humidity would usually be high, in large evergreen trees whose winter canopy of foliage slowed heat dissipation and protected plants from wind-blast during freezing weather, and whose bark was tight enough to provide a satisfactory anchorage. ☐ The first evergreen tree they found was a *Magnolia grandiflora,* where they found *Epidendrum conopseum* growing in profusion. Subsequent research showed the results of freezing weather on the plants and this led to cultivation in greenhouses for reintroduction into the wild. Perhaps that is another story in itself for this article is intended to deal solely with the present results of work with the yellow Ladys-Slipper orchid. ☐ Years ago this magnificent orchid must have been fairly common in Louisiana, for flower lovers are said to have collected it from the woodlands of north Loui-

"The Ladys-Slipper orchid is one of our loveliest treasures . . ."

siana for planting in their home gardens. Unfortunately these wild plants seem not to have survived such treatment, and only a few very talented horticulturists whose gardens offered unusually favorable growing conditions for transplants were successful in saving them. ☐ As research progressed with this particular wild orchid it became evident that it was, indeed, a rare plant in Louisiana. Lynch's research unearthed the possibility that this orchid was never designed to be abundant here in the first place. The state's present and former stands of the plant represent an extreme southern limit for a species whose main geographical range lies in the cool, temperate zone of North America. ☐ This presented a challenge to John Lynch. He began to work with this particular wild orchid. The results became obvious in April of this year. ☐ On April 18 and 19 the New Orleans Orchid Society and the Whitney National Bank of New Orleans sponsored the 12th Mid-America Orchid Congress. The group consists of orchid societies from all the Mississippi Valley states, from Minnesota south to the gulf coast. ☐ All of these orchid societies, which are made up of amateur and professional orchid enthusiasts from all walks of life, are affiliated with a national organization known as The American Orchid Society. The latter, located at Harvard University, encourages greater interest in and enjoyment of all orchids and has a working committee that is dedicated to worldwide conservation of wild orchids. It sets rules and standards for orchid shows and certified judges who are capable of determining the quality of exhibits at such shows. ☐ "The theme of our exhibit at that show was Conservation of Wild Orchids. This exhibit was awarded first place in the Educational Category of the displays. This award reflects credit on our many conservation co-workers at LSU, Baton Rouge, LSU, Alexandria, USL at Lafayette, and Northwestern State College at Natchitoches, as well as other professional and amateur biologists and horticulturists, some of whom are with the Louisiana Wild Life and Fisheries Commission," Lynch said. ☐ Louisiana's considerable progress in this particular field of conservation made many of our neighboring states to the north sit up and take notice. Lynch said that some people think we are not progressors but actually we are so busy making new progress that we don't have time to make noises about progress already achieved. ☐ "The keystone of our prize-winning conservation exhibit was a pot-grown specimen of the southern yellow Ladys-Slipper. This is one of the largest and most lovely of North America's native orchids and a plant that once was common in Louisiana but in recent years had almost disappeared from the state. This plant was awarded a Certificate of Cultural Merit, which reflected horticultural care as well as flower quality. Particularly noteworthy was the fact that the judges gave this specimen 91 points. A cultural of award of as high as only 80 points is considered quite good in orchid circles," Lynch said. ☐ How does growing an endangered plant in a flower pot advance its conservation? Lynch was asked. ☐ "Studies of endangered species must start in the field. But the conservation biologist soon encounters complex problems that must be brought into the test tube in a laboratory so that environmental complexities can be sorted out and examined individually. In the present case, our test tube was a flower pot and our horticultural laboratory was the greenhouse. Now that we have mastered the art of greenhouse culture of this rare orchid, we are learning things that shed new light on field aspects of its conservation," he replied. ☐ What are the reasons for the current scarcity of this rare orchid in Louisiana? This was another question put to Lynch. "Plant collectors have been indicted but they are only partly to blame. Environmental difficulties seem to be the real trouble. In the first place, Louisiana's yellow Ladys-Slippers are at the extreme southern limit of species whose optimum range lies in cool temperate zones well north of Louisiana, so this orchid probably was always under some ecological stress in Louisiana. "When man intervened and ranged hogs and cattle in our woodlands, many plants were destroyed. Others have been drowned by new reservoirs. The clearing of woodlands for farms and the replacement of cool, diciduous forests with pine trees have further altered its preferred habitats. ☐ "Then, to top it all, the few remaining plants that still flower in the wild in Louisiana are no longer producing seed. This may be because such flowers are too far apart for insects to carry pollen from one to another, or perhaps the particular insect needed for pollination has been lost. ☐ "We remedied this last situation by hand-pollinating every flower we found in the wild and by getting our greenhouse-grown plants to produce fertile seed. Now we are trying to get better germination of the seed, which is another story." ☐ You are a wildlife biologist, and most of your work has been with waterfowl. What got you interested in orchid conservation? ☐ "A conservationist must be a general practitioner of biology, whose interests may span all of life and living things and the human values that make some higher in our esteem than others. I have actually engaged in tracking down reports of the very rare ivorybilled woodpecker in north Louisiana when I first ran across this Ladys-Slipper orchid. I haven't found any ivorybills as yet but I did find that this lovely orchid which grows in the same country was in almost as desperate a condition as the woodpecker and would be a good outlet for my conservation talents while waiting for the bird to show up." ☐ It seems unusual for a biologist whose specialty is birds to be so interested in plants. ☐ "All students of birds and other animals have to know plants. The earth blanket of vegetation furnishes the living space or habitat for such creatures. The earth's soil affords the raw chemical materials needed to sustain bird and other animal life but this raw material must be converted to usable food in order to be available to these creatures. Plants do the job of converting the raw chemical elements of the soil into the foods needed to nourish other forms of life." ☐ But orchids would seem to be too delicate to be very useful in this regard. ☐ "Orchids are not so delicate as one might think. They have to be quite tough to live in some of the places they inhabit, yet in many ways orchids are very sensitive (orchid growers in smog areas knew about their air

pollution long before the latter term was invented). Orchid flowers are very sensitive to products of combustion of certain fuels, such as ethylene gas. This gas is a growth inhibitor that may not deter an orchid from growing well but definitely will stop it from flowering properly. Since they are so sensitive to atmospheric conditions I consider orchids to be splendid indicators that offer the biologist many clues as to the living conditions that prevail at any given time in environments." ☐ I thought you scientists strove to be objective and remote, yet some of the things you say sound almost human. ☐ "The conservation biologist must indeed be objective insofar as his scientific disciplines are concerned but if he utterly disregards the emotional values we humans place on wild things he may find himself badly disoriented. Which is poor scientific procedure, because the scientist should strive at all times to keep all things in perspective. Anyway, in my opinion, this ladys-slipper orchid is one of Louisiana's most lovely natural treasures and is too precious a thing to let disappear from our state's flora. You might say that I'm being scientific but for a very human reason, just as I would be if I was trying to arrange for more mallard ducks and whooping cranes, or fewer rice birds and water hyacinths." ☐ One of the problems we often encounter in these very rare and endangered plants and animals is the fact that their genetic capabilities are being narrowed down. We have been aware of these possibilities regarding the yellow ladys-slipper orchid and have appealed to anyone knowing of stands of this plant to let us know when they have one in the flower. ☐ "Early part of this week we received news that two of these orchids were flowering at Arcadia, Louisiana, in the garden of an old man who is a woodsman as well as being a medicinal planter. We immediately brought pollen from out of Lafayette stock to the plants at Arcadia, then took the pollen from the Arcadia plants and brought it to some plants we knew existed in Caldwell parish and pollinated the plants there, then took pollen from the Caldwell plants and took it down to some plants in Catahoula Parish and then, as a final go around, we took pollen from Catahoula back to some plants in Lafayette. Incidentally not many insects could make that round trip that quickly, hauling pollen."

FROM SOUTH OF THE BORDER



If you are not an ornithologist or have not been familiar with Louisiana birds, you probably never heard of the derby or kiskadee flycatcher *(Pitangus sulphuratus)*. And if you have never heard of a derby flycatcher you can not be expected to know that recent records have definitely established its presence in Louisiana.

The kiskadee is a handsome member of the tyrant flycatcher tribe. It usually is found from the southern Rio Grande Valley in Texas, south to central Argentina. When I first visited Brownsville, Texas, in 1969, I found this bird somewhat common in areas round ponds, river beds, and mesquite stands. Although kiskadees are mainly insect eaters like other flycatchers, I occasionally encountered them catching small fish and observed them perched in the manner of kingfishers on dead branches overhanging the edges of ponds. It is a singularly likeable but noisy creature having a great variety of notes. From these notes a great many local names are based: "Bien-te-veo," "Dich-oso-fui," (interpreted as Kiss-ka-dee) and "Chio" (A.C. Bent, 1942: *Life Histories of North American Birds*). On May 23, 1930, a single specimen was taken at Chenier au Tigre in Vermilion Parish and furnished the first positive record for the kiskadee in Louisiana. Recently this bird has been seen more frequently in Louisiana but no one knows why this should be so. Ornithologists now have focused their attention on Hackberry Woods in Cameron Parish where it has been observed regularly for the past three years.

Dr. George H. Lowery, Jr. informed me that at the Louisiana Ornithological Society meeting in the spring of 1968, a kiskadee was discovered at Hackberry, building a nest sixty feet up in a dead sycamore; two more were seen there several weeks later. The bird was seen again in the fall and was probably present since spring.

Robert Newman, a friend and colleague from Louisiana State University made a trip to Hackberry in May of this year. He was following up on some earlier reports made in April by Joe Kennedy of New Orleans. To his surprise, the racous-voiced kiskadee made its appearance and confirmed the second record for 1970. As yet, no one has seen the birds with young, but it can be assumed that if the frequency of appearance continues to increase we may well have a new summer resident bird in Louisiana; and an exotic one at that!

by H. Jon Janosik